DOCUMENT RESUME

ED 253 726 CE 040 718

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TITLE Effectiveness of SOE in Montana's Vocational Agriculture Program.
INSTITUTION Montana State Univ., Bozeman. Dept. of Agricultural and Industrial Education.
SPONS AGENCY Montana State Office of Public Instruction, Helena. Dept. of Vocational Education Services.
PUB DATE Aug 84
NOTE 32p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Agricultural Education; Educational Research; Experiential Learning; *Program Effectiveness; Secondary Education; State Surveys; Student Attitudes; *Supervised Farm Practice; Teacher Attitudes; *Vocational Education; *Work Experience Programs
IDENTIFIERS *Montana

ABSTRACT

A study was designed to determine the strengths and weaknesses of Supervised Occupational Experience (SOE) in Montana and the extent to which vocational agriculture teachers were using it to enhance their students' education. The student population consisted of 144 vocational agriculture students who had submitted records on SOE projects. All vocational agriculture teachers in Montana with at least one year of teaching experience formed the teacher population. Although almost all vocational agriculture teachers said they required SOE, almost one-half of the students indicated they were not told of the requirement. Students reported that parents as well as teachers provided assistance in planning an SOE. Data indicated that recordkeeping and classroom instruction are the two areas in which teachers provide the greatest amount of assistance. On-site instructional visits were more frequent for seniors. Most students did not find the teacher's visits helpful. Students felt recordkeeping, decision making, planning, goal setting, and developing responsibility are the most important experiences gained by having an SOE. Both teachers and students reported that SOE was used to determine grades. Data revealed general agreement between teachers and students with regard to SOE. Implications of the study are noted and eight recommendations for Montana's vocational agriculture program are provided. (YLB)

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Effectiveness of SOE in Montana's Vocational Agriculture Program

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August, 1984

ED 240718

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INTRODUCTION

The Supervised Occupational Experience Program (SOE) is a critical part of the vocational agriculture program. SOE is the part of the vocational agriculture program which requires students to apply technical information learned in the classroom to an actual situation. This application of technical information combined with advice from parents, employers and vocational agriculture teachers creates an excellent educational opportunity for students. However, the trend across the United States has been for fewer vocational agriculture students to become involved in SOE.

Research by Iverson and Brown (1979), in the southern part of the United States, found that nearly two-thirds of the vocational agriculture program did not have SOE programs. Studies by Vaughn (1982), in New Mexico, and Long (1982) in Utah, and McCall (1982), in Colorado revealed that the percentage of VoAg students with SOE varied for about 60 to 95 percent.

Much has been written in recent months about the status of Supervised Occupational Experience Programs and its importance to a vocational agriculture program. Many vo-ag teachers are enthusiastic about maintaining and improving SOE while other vo-ag teachers, for reasons of their own, are less enthusiastic. The major emphasis with SOE has been and probably will continue to be the production agriculture project. Several possible reasons are

that a large majority of the students have been raised on an agricultural operation, and probably have some type of project prior to enrollment started. If the project has not been started, it is relatively easy to convince the parents of the need for a production project. Also, youth tend to be extremely interested in animals.

However, the SOE placement program presents a different and more difficult situation. The age of the beginning student certainly may be a limiting factor. For example, the law requires that a student must be 16 years old or have participated in a tractor and machinery operation course before they can operate certain farm implements is likely to prevent some students from being placed in an agricultural operation. Consequently, producers are understandably reluctant to allow young unexperienced students to operate a machine costing thousands of dollars, unless they can closely supervise the student. With agricultural operations becoming more labor intense, there is little time for proper supervision and training by employers. Consequently, less opportunity for student employment.

Because agriculture work is seasonal, student employment opportunities are generally available only during the summer or on a limited weekend basis. As a result, placement SOEP generally may only receive teacher attention during the summer. Consequently, the opportunity to apply classroom learning to the real world is limited. Student interest is decreased and in some cases the student finds employment outside of agriculture. Employment in a

non-agriculture area creates problems for vo-ag teachers. Even though the student is employed, his or her experience doesn't relate to agriculture and therefore does not meet the requirement of the vocational agriculture program because it is not agricultural related and likely doesn't fit the individual's agriculture career objective.

With a number of factors influencing SOE, many people were asking, "How effective is the SOE program?" Because no one knew the status of SOE in Montana, this study was undertaken.

STATEMENT OF THE PROBLEM

The purpose of this study was to determine the strengths and weaknesses of SOE in Montana and the extent that vocational agriculture teachers were using it to enhance their student's education.

OBJECTIVES

The specific objectives of this study were to:

1. Determine the extent SOE was being taught as a part of the vocational agriculture program.
2. Determine the impact SOE had on the educational experience of vocational agriculture students.
3. Determine the frequencery and time spent by vocational agriculture teachers during the on-site instruction visits to students with and without SOE.
4. Determine vocational agriculture students and teachers' perceptions of SOE and on-site instruction visits.

5. Determine the growth of SOE projects as students progress through high school and the factors which influenced this growth.

6. Determine the status of SOE in Montana by analysis of yearly reports submitted by vocational agriculture teachers.

METHODS

The annual FFA membership rosters and Final Report on Farm Experience and Agriculture-Related Occupational Experience (Form II) for the years 1975, 1979, 1980, 1981, 1982, and 1983 were obtained from the Montana Vocational Agriculture Consultant in the State Office of Public Instruction. The information contained in these reports were analyzed by the researcher, and appropriate data placed in tables. From these forms, the student population was identified. The student population consisted of 144 vocational agriculture students, who had submitted three or four years of continuous records on their SOE projects for the years 1979 to 1982. All vocational agriculture teachers who had one or more years of teaching experience and were teaching in Montana formed the teacher population.

After an extensive review of the literature, questions from previous studies completed in Utah, Arizona, Colorado, California, and Oregon were incorporated into a questionnaire. Because the questions had been validated and used in a previous study, the researcher chose only to further validate the instrument by having the staff within the Agricultural and Industrial Education Department serve as a peer review committee. A valid questionnaire for both students and vocational agriculture

teachers was prepared and mailed to the two populations. Three weeks following the initial mailing, a follow up letter and another questionnaire were mailed to nonrespondents.

Fifty percent of the students and eighty-six percent of the teachers returned the questionnaire. The responses from the questionnaire were coded and entered on the computer via an interactive terminal. The data were analyzed using t-test and frequency programs of The Statistical Package for Social Sciences (SPSS).

POPULATION CHARACTERISTICS

The demographic section of the survey instrument revealed that 91.0 percent (49) of the teachers were employed under contracts for 10.5 months or longer. Nine percent (5) teachers were employed for nine months. The length of tenure for the teachers varied from one year to twenty-four years. Seventy-eight percent (41) of the teachers reported that they had been enrolled in vocational agriculture as a high school student. Eighty-eight percent (36) also reported that they were taught about SOEP and 92 percent (38) indicated they were active in a local FFA chapter.

Seventy-eight percent (36) of the students surveyed lived on farms/ranches or acreage. Twenty percent (14) lived in towns with a population under 5000 and the remaining two percent lived in a city with a population greater than 5000 people. The data in Table 1 reveal that 84.7 percent of the student respondents had completed eight semesters of vocational agriculture.

TABLE 1. NUMBER OF SEMESTERS OF VOCATIONAL AGRICULTURE COMPLETED BY STUDENTS.

Semesters	Frequency	Percent
Four	1	1.4
Five	1	1.4
Six	7	9.7
Seven	2	2.8
Eight	61	84.7
	72	100.00

FINDINGS

As explained in the methods section of this report, three different phases of this project were conducted. Each section will be reported separately, unless the data from each phase were directly related.

FINAL REPORT ANALYSIS

The data obtained in analyzing the final reports submitted to the State agriculture education consultants by local teachers is presented in this section. Because of incomplete reports, 36 schools were used to supply data for 1975, 57 schools were used for 1982, and 56 schools for the 1983 data. Only those programs which were in operation in 1982 were included in the 1975 data.

The data in Table 2 reveals that in 1975, 45.2 percent of the students in Montana's vocational agriculture program were reported to have an SOEP. By 1982, the percentage had risen to 55.6 percent, and by 1983 had risen further to 58.4 percent. One point that must be kept in mind when examing this data is that some schools offer specialized semester classes in agricultural mechanics. Consequently, some students may be enrolled for just one semester and were not required to be in FFA or have an SOE

program. Because there was no way to identify those students in the enrollment data, the percentages reported here may be slightly low.

TABLE 2. PERCENT OF MONTANA VO-AG STUDENTS WITH SOE AS REPORTED ON MONTANA'S FORM II.

Year	N	No.	%
1975	2185	988	45.2
1982	2333	1299	55.6
1983	2216	1296	58.4

Upon examining the data in Table 3 for FFA membership, it was found that in 1975, 65.7 percent of Montana's Vocational Agriculture students were dues paying members. By 1982, the percentage had increased to 74.7 percent, and in 1983 was 80.2 percent.

TABLE 3. PERCENT OF MONTANA VO-AG STUDENTS WHO BELONG TO FFA.

Year	N	No.	%
1975	2185	1436	65.7
1982	2333	1745	74.7
1983	2216	1779	80.2

The above data indicate that a certain portion of the student population chose not to have an SOEP or belong to FFA. To further ascertain the extent of this breakdown in the Montana Vocational Agriculture program, the data were analyzed to determine the percent of vocational agriculture students with specific projects and FFA members with specific projects.

TABLE 4. PERCENT OF MONTANA VO-AG STUDENTS WITH PROJECTS BY TYPE.

Type of Project	Year					
	1975		1982		1983	
	No.	%	No.	%	No.	%
Production	535	24.4	680	29.1	718	32.4
On-Farm	347	15.8	465	19.9	494	22.3
Ag-Related	284	7.7	411	17.6	390	17.6
	(N=2185)		(N=2333)		(N=2216)	

The data in Table 4 reveals that 32.4 percent of the 1983 students were reported as having production projects. Only 22.3 percent of the students had on-farm experience programs, whereas 17.6 percent were reported as being involved in agriculture related projects. Since 1975 all types of projects show a gradual increase in the number of students involved in each project area.

TABLE 5. PERCENT OF MONTANA FFA MEMBERS WITH PROJECTS.

Type of Project	Year					
	1975		1982		1983	
	No.	%	No.	%	No.	%
Production	641	37.3	680	38.9	718	40.3
On-Farm	400	23.3	465	26.6	494	27.7
Ag-Related	359	20.8	411	23.5	390	21.9
	(N=1715)		(N=1745)		(N=1779)	

The information in Table 5 shows that in 1983, 40.3 percent of Montana FFA members were involved in production agriculture type projects. The percent of FFA members with on-farm experience programs was 27.26 and 21.95 percent was reported as having agriculture related projects. The data also shows a gradual increase over what was reported in 1975.

With things as they were in agriculture, the researcher was curious as to the effect the agriculture economy was having on the type of project developed by those students having an SOE. Table 6 data, reveal that there has been an increase in the number of on-farm experience and agriculture related projects. In 1975, 33.1 percent of the students with SOE were involved with on-farm experience, whereas in 1983, the percentage had increased to 38.1. The percentage involved in agriculture related projects increased from 29.7 to 31.6 percent, and then dropped slightly to 30.1 percent. With regards to production type project, a slight decrease in percentage, followed by a slight increase in percentage was revealed.

TABLE 6. PERCENT OF STUDENTS WITH SOE BY TYPE OF PROJECT.

Type of Project	Year					
	1975*		1982		1983	
	No.	%	No.	%	No.	%
Production	641	53.1	680	52.3	718	55.4
On-Farm	400	33.1	465	35.7	494	38.1
Ag-Related	359	29.7	411	31.6	390	30.1
	(N=1205)		(N=1299)		(N=1296)	

* Percentage will exceed 100 because of students having more than 1 SOEP.

As the economic conditions changed, the number of projects carried by each student might be expected to decrease. However, the information presented in Table 7 shows that in Montana there has been minimal change in the number of SOE projects conducted by a student.

TABLE 7. NUMBER OF PROJECTS CARRIED BY STUDENTS IN 1975, 1982.

Projects	Year			
	1975		1982	
	No.	%	No.	%
One	1014	84.1	1084	83.4
Two	135	11.2	148	11.4
Three	31	2.57	43	3.3
Four	12	1	15	1.15
Five	13	1	9	.69
	(N=1205)		(N=1299)	

With the production project being the most frequently used by Montana students, the question arose as to what the distribution of different type of enterprises would be. An analysis of the production records of Montana's 1982 state farmers resulted in the data presented in Table 8.

TABLE 8. ANALYSIS OF 1982 MONTANA STATE FARMERS PRODUCTION PROJECTS.

Project	Number of Units	Number of Students	X	SD
Beef	245 Head	31	7.9	6.26
Sheep	567 Head	19	29.84	32.37
Swine	552 Head	13	42.46	38.52
Grain	293.6 Acres	13	22.58	20.42
Horse	27 Head	11	2.45	1.86

Beef production projects were utilized by 31 state farmers with sheep projects being used by 19 state farmers. The standard deviation reveals that a wide variation in size of production project exists among state farmers.

Data in Table 9 show that 46 percent of 1982 Montana State Farmer had only one project as their SOE. Whereas only one state farmer had six projects as part of his/her SOE program.

TABLE 9. FREQUENCY OF PROJECTS CONDUCTED BY MONTANA'S STATE FARMERS.

No. of Projects	No. of Students	%
One	27	46
Two	17	29
Three	12	20
Four	2	3
Five	0	0
Six	1	1

When examining the data in the Final Reports, it became apparent that a large number of students were reported as having kept records for only three years. The question arose as to what would be the difference, if any, in the size of a senior's SOE if they reported having SOE records for four years versus three years. Because of the small number of students reporting three or four years of records, only beef production projects are reported.

TABLE 10. COMPARISON OF SIZE OF BEEF PRODUCTION PROJECTS FOR STUDENTS REPORTING THREE AND FOUR YEARS OF RECORDS.

	Four Years of Records			
(N=20)	1979	1980	1981	1982
Mean Size	2.3	3.8	6.17	6.61
S.D.	1.94	2.48	4.41	4.45
	Three Years of Records			
(N=23)	1979	1980	1981	1982
Mean Size	----	2.21	3.31	5.59
S.D.	----	1.56	2.94	5.6

When analyzing the data in Table 10, it can be observed that those with four years of records had one more beef unit than those who had three years of records. It is interesting to note that in both groups the largest increase in project size occurs

between the second and third year of records. A similar pattern appeared to exist within sheep production. However, due to the small number of records to work with the data were inconclusive.

The researched was also interested in the increase in size of on-farm and agricultural related projects. The data in Table 11 indicates the results of this analysis.

TABLE 11. EARNING REPORTED BY STUDENTS HAVING 3 OR 4 YEARS OF ON-FARM AND AGRICULTURAL RELATED PROJECT RECORDS.

Project	N	Average Earnings by Year 1979	1980	1981	1982
On-Farm	33	$651.51	$934.63	$1,465.00	$1,871.82
Ag-Related	16	1,341.00	1,051.75	1,990.12	2,149.43

The information in Table 11 discloses that the dollars earned by students increases as they progress through the years. The largest increase in money earned occurs between the second and third year. For those having on-farm projects, their earning increased by $531 ($465-$934) between the second and third year. For those with Agricultural related projects, the largest increase $939 , also occured during the same time period. The influence of current economics could be an explanation for this.

ANALYSIS OF TEACHER AND STUDENT QUESTIONNAIRE

In order to complete parts of research objectives one and five, the student respondents were asked on the survey instrument to indicate when they learned about SOE, and when they started their project. Fifty-two or 78.8 percent of the student respondents

indicated that they had learned about SOEP from their local vocational agriculture teacher. However, 47.9 percent (34) of the students indicated that they were not told SOE was required. Thirty-seven students (52.1%) reported that they were told that SOE was required. This is contrasted by teachers who indicated that 92.2 percent (47) of them told students that SOE was required.

TABLE 12. ELAPSED TIME FROM ENROLLMENT IN VO-AG TO STARTING TIME OF SOEP AS REPORTED BY STUDENTS AND TEACHERS.

	Students (N=70)		Teachers (N=52)	
Time	Frequency	%	Frequency	%
1 or 2 months	17	24.3	31	59.6
3 or 4 months	22	31.4	14	26.9
5 or 6 months	7	10.0	7	13.4
7 or 8 months	2	2.9	--	--
9 or 10 months	4	5.7	--	--
11 or 12 months	3	4.3	--	--
Other	15	21.4	--	--

As indicated in Table 12, a large percentage, 24.3 and 31.4, of the students were starting their SOE soon after enrolling in vocational agriculture. However, 21.4 percent were not becoming directly involved in SOE until after they had been enrolled in the Vocational Agriculture Program for one year. This contradicts the fact that teachers reported all students were required to have an SOE within 5 or 6 months after enrolling in vocational agriculture.

With SOE being required by almost all of Montana's vocational agriculture teachers it could be hypothesized that they were actively involved and instrumental in getting students started

with their project. The data in Table 13 show that 27.8 percent (20) of the teachers were perceived as provided a great amount of assistance in planning an SOE; whereas 41.7 percent of the parents were perceived as providing a great amount of assistance. Students perceived that 52.8 percent of the teachers and 44.4 percent of the parents provide a moderate amount of assistance in planning a SOE. Eight percent of the teachers were perceived as providing no assistance to students starting a SOEP. Also, 88.7 percent (47) of the teachers reported that they had no written minimum standards for SOE in their program.

TABLE 13. LEVEL OF ASSISTANCE PROVIDED BY TEACHERS AND PARENTS IN PLANNING A SOE, AS PERCEIVED BY STUDENTS.

(N=72)	Teachers		Parents	
Assistance	No.	Percent	No.	Percent
None	6	8.3	1	1.4
Very Little	8	11.1	9	12.5
Moderate Amount	38	52.8	32	44.4
Great Amount	20	27.8	30	41.7

Students were asked to indicate ways in which the vocational agriculture teacher had helped them with their SOE. The results of their responses are shown in Table 14.

TABLE 14. TYPE OF HELP PROVIDED TO STUDENTS BY TEACHERS

Type of help	Frequency	*Percent
Setting SOE goals	23	31.5
Classroom instruction	39	53.4
Planning an SOE	15	20.5
Supervising the SOE	19	26.0
Record keeping	51	69.8
Evaluating the SOE	28	38.3
No help provided	6	8.2

* Percent may exceed 100 because students could have up to three responses.

The data in Table 14 discloses that record keeping and classroom instruction are the two areas in which teachers provide the greatest amount of assistance to students with regards to their SOEP. This was supported by the teachers who revealed that their major emphasis in SOE instruction was record keeping. The amount of time spent on classroom instruction by teachers relative to record keeping is revealed in Table 15.

Thirteen teachers (24.5%) reported that they spent 16 to 20 hours instructing the freshman students on record keeping. Whereas 10 teachers (18.8%) spent 11 to 15 hours and 17 teachers (32%) spent 6 to 10 hours teaching record book. Seniors on the other hand received few hours of instruction, with 18 (33.9%) teachers reporting they spent 1 to 2 hours and 13 (24.5%) indicating 3 to 5 hours of record keeping instructional time.

TABLE 15. INSTRUCTIONAL TIME SPENT ON RECORD KEEPING BY GRADES.

	Grades							
	Senior		Junior		Sophomore		Freshman	
Hours	No.	%	No.	%	No.	%	No.	%
Zero to two	18	33.9	22	43.1	16	31.3	5	9.4
Three to five	13	24.5	16	31.3	18	35.2	8	15.0
Six to ten	9	16.9	8	15.6	10	19.6	17	32.0
Eleven to fifteen	4	7.5	4	7.8	6	11.7	10	18.8
Sixteen to twenty	7	13.9	2	3.9	1	1.9	13	24.5

Classroom instruction is a viable part of the SOE program. However, the process must be strengthened by the on-site instructional visit. The information in Table 16 reveals the frequency at which Montana vocational agriculture teachers conduct on-site instruction. Potential American farmers received

the most visits, with 1.66 on-site instructional visits being made per year. On the other hand, freshman enrolled in vocational agriculture received the fewest visits with only .52 on-site instructional visits per year. As students progress through high school their chances of receiving on-site instruction is increased. The student's chance of a visit can also be increased by becoming an FFA member and expressing a desire to try for a chapter officer, proficiency award or becoming an American farmer.

TABLE 16. AVERAGE NUMBER OF YEARLY ON-SITE INSTRUCTION VISITS BY TEACHERS TO DIFFERENT GROUPS OF STUDENTS.

Groups	Mean
Chapter officers	1.14
Potential state farmers	1.44
Potential Proficiency Award Winnter	1.53
Potential Amercian farmers	1.66
Seniors in VoAg	.83
Seniors in FFA	1.07
Juniors in Vo-Ag	.81
Juniors in FFA	.97
Sophomores in VoAg	.79
Sophomores in FFA	.97
Freshman in VoAg	.52
Freshman in FFA	.64

The student questionnaire revealed that 16.7 percent (12) of them were not visited in a given year. Forty-two percent (30) indicated they were visited once per year and 23.6 percent (17) said they were visited twice.

The teachers were asked, by means of an open ended question, to indicate their educational objective for making on-site instructional visits. A summary of the responses by the researcher is presented in Table 17. The data in Table 17 discloses that the

major objectives of Montana vocational agriculture for conducting on-site instruction are to: (1) make students and parents aware of SOE and to improve their understanding, (2) to inspect the SOE project, and (3) to check the student's recordbooks. The emphasis on recordbooks is supported by the fact that 90.3 percent of the students reported that they were required to keep a recordbook.

TABLE 17. SUMMARY OF TEACHER'S RESPONSES REGARDING EDUCATIONAL OBJECTIVES FOR ON-SITE INSTRUCTION.

Objective	Frequency
Develop student and parental awareness and understanding	19
Inspection of the SOE Project	19
Check the Recordbook	17
Offer Suggestions for Improvement	11
Public Relations	10
Help Establish Goals	7
Provide Instruction & Guidance	6
Provide Career Information	3

The data in Table 18 reveal the perceived amount of time spent by teachers with the student during an on-site instructional visit. A large percentage of the teachers and the students reported that the on-site instruction lasted two hours or less. A higher percentage of the students, 19.4 (12) reported that the on-site instruction lasted for one-half an hour than did the teachers; who reported 7.7 percent (4) of them only spent one-half hour.

TABLE 18. AVERAGE HOURS SPENT CONDUCTING ON-SITE INSTRUCTION AS PERCEIVED BY STUDENTS AND TEACHERS.

Hours	Students		Teachers	
	No.	%	No.	%
.5	12	19.4	4	7.7
1.0	14	22.6	10	19.2
1.5	8	12.9	11	21.2
2.0	15	24.2	18	34.6
2.5	6	9.7	3	5.8
3.0	4	6.5	3	5.8
3.5	2	3.2	1	1.9
4.0	1	1.6	2	3.8
	62	100	52	100

As reported in Table 19, students have a variety of opinions as to the helpfulness of the vocational agriculture teachers on-site instruction. Only 5.6 percent (4) of the students felt the on-site instruction was extremely helpful. Whereas 19.7 percent (14) revealed that the instruction was not helpful.

TABLE 19. HELPFULNESS OF ON-SITE INSTRUCTION AS PERCEIVED BY STUDENTS.

Degree	No.	%
Not helpful	14	19.7
Somewhat helpful	15	21.1
Helpful	26	36.6
Very helpful	12	16.9
Extremely helpful	4	5.6
	72	100

Even though the on-site instruction may not have been perceived as helpful, the visit to the student may have been perceived as valuable. The information in Table 20 discloses that, for a majority, (35.3 + 17.6), the teacher's visits were not very valuable. Thirty-five percent (24) of the students indicated

that the teacher's visits were of some value, while 32.4 reported it valuable.

TABLE 20. VALUE OF TEACHER'S VISITS AS PERCEIVED BY STUDENTS.

Degree	No.	%
No value	12	17.6
Some value	24	35.3
Valuable	22	32.4
Very valuable	4	5.9
Extremely valuable	6	8.8
	68	100

The data supplied by the students reveal that they feel record keeping, decision making, planning, and goal setting and developing responsibility are the most important experiences gained by having an SOE.

The value of the SOE could possibly be determined by whether or not a student continues with his/her SOE after graduating from high school and if it is related to his/her career goals. Sixty-seven percent (48) students reported that they continued with their SOE after graduation. Fifty-nine percent (41) students indicated that their SOE was directly related to their career aspirations, while 41 percent felt their SOE was not related to their career. This could possibly explain why thirty-three percent discontinued their SOE after graduating.

With SOE being a vital part of the total vocational agriculture program, it seems likely that the [illegible] would be utilized by the teachers in determining a student's [illegible].

TABLE 21. STUDENT AND TEACHER RESPONSE TO THE QUESTION, "IS SOE UTILIZED IN DETERMINING STUDENT GRADES?"

Group	Response			
	Yes		No	
	No.	%	No.	%
Teachers	28	52.8	25	47.2
Students	40	55.6	32	44.4

The information in Table 21 shows that 52.8 percent of the teachers are utilizing SOE in some way to determine a student's grade. The students appear to understand this as 55.6 percent reported that they know SOE was a part of their vocational agriculture grade. In addition, 52.4 percent of the teachers reported that the SOE grade account for five to ten percent of the final grade. The remaining teachers used a variety of percentages, varying from 13 to 40 percent of the final grade.

An objective of the study was to determine the students and teachers' perceptions about SOE. In order to meet this objective, a portion of the questionnaire contained 22 statements pertaining to SOE. The groups were asked to indicate their level of agreement with the statement utilizing a five-point Likert type scale. The categories and values assigned to each were as follows: Strongly Agree=5, Agree=4, Disagree-3, Strongly Disagree=2 and No Opinion=1. A comparison of students and teachers' responses are presented in Table 22.

The data in Table 22 reveal that there is general agreement between teachers and students with regards to SOE. The three

statements in which there is significant disagreement at the .05 level of confidence are: (1) SOEP's can be properly supervised by examination of the student recordbook. (2) FFA awards and degrees promote and encourage students to conduct SOEPs. (3) SOEPs should be considered in determining the students' grades. It is interesting to note that students are more likely to perceive that proper supervision by the teacher can be accomplished by a close examination of the SOE recordbook. The student responses resulted in a mean of 3.22, which indicates agreement with the statement, whereas the teachers had a mean of 2.75, which indicates disagreement with the statement.

As reported earlier in this study, about 50 percent of the teachers used SOE as a part of the student's vo-ag grade. However, when comparing teachers and student responses, there is significant disagreement about using SOE as a part of the student's grade.. The teacher's responses resulted in a 3.48 mean, and the student's response having a mean of 2.91. Also, the students indicated (X=4.45) that they perceived the FFA awards and degrees to promote and encourage students to conduct an SOE at a higher level than did the teachers (X=4.14).

Even though some students felt the on-site instructional visit was not helpful or valuable, students (X=2.27) and the teachers (X=2.43) both disagree with the statement, "Teacher's time is wasted on SOE visitations." Both groups also disagree with the idea that students with ag-related SOEPs should find their own employment.

TABLE 22. SUMMARY OF STUDENT AND TEACHER RESPONSES TO 22 SELECTED STATEMENTS ABOUT SOE.

		Teacher	Student	t-score
1.	All students enrolled required to have an SOEP each year.	4.15	4.02	.484
2.	SOE is instrumental in preparing for employment.	4.38	4.34	.775
3.	SOE should be continuous and expanding.	4.38	4.14	.155
4.	Not all students can benefit from SOE.	3.01	2.91	.569
5.	Student is resonsible for selecing and establishing a SOE.	3.88	3.91	.842
6.	SOE should relate to students' planned occupational career.	3.75	3.74	.942
7.	SOEP's can be properly supervised by examination of student recordbooks.	2.75	3.22	.003*
8.	Teacher's time is wasted on SOE visitations.	2.43	2.27	.202
9.	SOE teaches many valuable traits which are hard to teach in a classroom.	4.32	4.22	.543
10.	SOE should be developed for every vo-ag student.	3.92	3.97	.776
11.	Parents and community are receptive to SOEP.	3.70	3.69	.957
12.	SOE is extremely valuable in preparing for employment.	4.29	4.45	.201
13.	SOE is not as important for those planning on attending college as for those entering the work force upon graduation.	2.81	2.66	.314
14.	Vo-ag instructors should conduct on-site instructional visits to all students.	3.94	3.66	.108

Table 22 Continued

	Teachers	Students	T-score
15. It is not necessary to visit students whose parents are successful farmers/agribusiness persons.	2.50	2.42	.433
16. FFA awards and degrees promote and enourage students to conduct SOEPs.	4.14	4.45	.027*
17. SOEPs should be evaluated regularly by teacher.	4.16	4.35	.113
18. SOEPs should be considered in determining the student's grades.	3.48	2.91	.007*
19. On-Farm Experience should be more than working for parents.	3.62	3.38	.235
20. SOEPs should be more than a project for the county fair.	4.11	3.80	.092
21. Studnts should be removed from vo-ag if they have not established or have a plan for an SOEP after six months.	2.79	2.77	.896
22. Students with ag-related SOEPs should be totally responsible for finding an employer.	2.88	2.73	.287

*Significant difference at the .05 level of confidence.

CONCLUSIONS

Using the data previously presented, the following conclusions have been reached.

1. Montana vocational agriculture teachers are not requiring all students enrolled in vocational agriculture to have an SOEP. However, they are more effective in requiring FFA members to have an SOE.

2. Production type SOEP are the most popular, followed by on-farm and agricultural related projects, respectively. Beef production projects are the most frequently developed production SOE.

3. Montana vocational agriculture teachers have had limited success in getting students to expand their SOE .

4. Montana vocational agriculture students who have four years of production records will have a large project in scope than those who have only three years of records. In addition, all three types of SOE will increase the greatest amount between the second and third year of record keeping.

5. Montana vocational agriculture teachers are not as efficient in getting students started with their SOEP's as they perceive themselves to be. One third of the students will not have their SOE in place within six months of enrolling in vocational agriculture. In addition, parents and teachers provide an equal amount of assistance in planning an SOE. The teachers greatest contribution comes through classroom instruction and help with record keeping.

6. Montana vocational agriculture teachers are making a limited number of on-site instructional visits. The students who are most likely to receive on-site instruction are seniors. Freshman students, who one would hypothesize to have the greatest need for on-site instruction, are being visited in lieu of those students who will bring the program the most recognition through applying for state and national awards.

7. Montana vocational agriculture teachers are spending a limited amount of time with a large percentage of the student during on-site instruction. This may be the result of their failure to plan educational objectives for the instruction. Consequently, a

number of students may not see much value in a visit, nor will they find it very helpful.

IMPLICATIONS

The findings of this study reveal the following implications:

1. There is a failure on the part of Montana vocational agriculture teachers to effectively communicate to all vocational agriculture students that SOE is a required part of the program.

2. The low frequency of on-site instruction to freshman students could be a major reason why one third of the beginning students don't get an early start with their SOEP.

3. Montana vocational agriculture teachers view the primary purpose of SOEP to be the teaching of record keeping.

4. Montana vocational agriculture instructors need to spend more time planning for on-site instructional visits.

RECOMMENDATIONS

The following recommendations are being made for Montana's vocational agriculture program:

1. A plan be developed which would require State vocational agriculture funding to the local school to encorporate three additional factors; (a) number of students in the local program, (b) the number of students with a bonafide SOEP and (c) the number of students who are State FFA dues-paying members.

2. Standards of SOEP be developed in order to quantify what is an acceptable project.

3. The emphasis of SOEP should be shifted from record keeping to an application of classroom instruction and development of competencies needed to work in agricultural occupations.

4. Teachers should spend more out of class time working with and visiting freshman students. Emphasis should be placed on long-range planning and getting the project established.

5. An increased emphasis should be placed on developing on-farm and agricultural related projects.

6. Local teachers should develop a better method of communicating to students that SOE and FFA are a required part of the vocational agriculture program.

7. Local teachers should encourage students to expand their production projects into more than one enterprise.

8. The final report form should be revised so as to require the signature of the local school administrator. This would help to inform local administration about the effect SOE is having on students and the financial impact the local program is having in the community.

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